

I claim:

1. An apparatus for grinding material comprising:

a grinder frame;

a grinding means mounted to the frame;

a drive means operatively connected to the grinding means;

a rotatable drum assembly having a rotatable circumvolving side wall, a stationary bottom surface, and defining therein a rotating drum space, the bottom surface having an opening therethrough for the passage of material to be ground, the rotatable drum assembly attached to the grinder frame in a position for alignment of the opening in the bottom surface with the grinding means for allowing the passage of material to be ground from the drum space into the grinding means;

means for rotating the rotatable side wall; and

a stationary drum assembly having a frustoconical stationary side wall configured to aid in feeding material into the rotatable drum space the stationary side wall having a smaller diameter end adjacent to the rotatable drum assembly and a larger diameter end, positioned atop the rotatable drum;

whereby material is loaded into the larger diameter end of the frustoconical stationary sidewall, the material passes through the stationary side wall into the rotatable drum space

where the material is contacted by the grinding means through the opening in the bottom surface of the rotatable drum assembly.

2. The apparatus for grinding material of Claim 1 which further comprises means for tilting the rotatable drum and stationary drum assemblies from a vertical position to a tilted position.
3. The apparatus for grinding material of Claim 1 wherein the diameter of the stationary wall at its largest end is greater than the diameter of the circumvolving rotatable wall.
4. The apparatus for grinding material of Claim 1 wherein the diameter of the stationary wall at its largest end is greater than the diameter of the circumvolving rotatable wall and the diameter of the stationary wall at its smaller end is less than the diameter of the circumvolving rotatable wall.
5. The apparatus for grinding material of Claim 4 wherein the stationary wall at its smaller end extends into the rotating drum space.

6. The apparatus for grinding material of claim 1, wherein said grinding means further comprises:

a screen chamber having a first end wall attached to a right rail of the frame and a second end wall attached to a left rail of the frame, the first and second end walls each defining bar passages and providing support for the bars; and

a hammermill assembly attached to the frame having a rotatable hammermill with extending hammers, and a hammermill screen having a plurality of bars mounted within the screen chamber positioned below the hammermill.

7. A loading assistance device for use in loading materials into a rotating chamber comprising:

a frustoconical shaped device having a circumvolving side wall, a larger dimensioned end and a smaller dimensioned end, each end having an opening;

wherein the larger dimensioned end is attached to a fixed location above the opening and the smaller dimensioned end extends through the open end into the rotating chamber.

8. An apparatus for grinding material comprising:

a grinder frame;

a hammermill assembly attached to the frame having a rotatable hammermill with extending hammers, and a hammermill screen having a plurality of bars mounted within the screen chamber positioned below the hammermill;

a screen chamber having a first end wall attached to the right rail of the frame and a second end wall attached to the left rail of the frame, the first and second end walls each defining bar passages and providing support for the bars;

a drive means operatively connected to the grinding means;

a rotatable drum assembly having a rotatable circumvolving side wall, a stationary bottom surface, and defining therein a rotating drum space, the bottom surface having an opening therethrough for the passage of material to be ground, the rotatable drum attached to the grinder frame in a position for alignment of the opening in the bottom surface with the grinding means for allowing the passage of material to be ground from the drum space into the grinding means;

means for rotating the rotatable side wall;

a stationary drum assembly having a frustoconical stationary side wall configured to aid in feeding material into the rotatable drum space attached to the frame, the stationary side wall having a smaller diameter end extending into the rotatable drum assembly and a larger diameter end, attached to the grinder frame and positioned atop the rotatable drum wherein the diameter of the stationary wall at its largest end is greater than the diameter of the circumvolving rotatable wall; and

means for tilting the rotatable drum and stationary drum assemblies from a vertical position to a tilted position;

whereby material is loaded into the larger diameter end of the frustoconical stationary sidewall, the material passes through the stationary side wall into the rotatable drum space where the material is contacted by the hammerends of the hammermill through the opening in the bottom surface of the rotatable drum assembly.

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